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ABSTRACT

The questions investigated in this study concern the adequacy of the current comprehensive English as a Second Language (ESL) programs, the need for a separate but complementary reading program, the relative merits of a classroom-based or an independent reading laboratory method, and the relationship between native language reading proficiency and the ability to read in English. The subjects were 101 Hispanic non-native speakers of English who were entering freshmen at an urban college. Subjects were randomly assigned to either a control group or to one of two experimental groups, one a classroom-based, the other an independent laboratory method. Statistics revealed that those students participating in a reading program made greater reading comprehension gains than those not participating. However, there was no significant difference in the performance of the two experimental groups. Nor was there any significant interaction between subgroups arranged according to English language proficiency. An analysis of the native language subgroups disclosed that the students with greater native language fluency made significantly more progress in learning to read in English than those of lesser fluency; they also made greater gains with the independent reading laboratory method than with the classroom based method. Neither method was effective with the low native language subgroups. (Author/AMH)

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A STUDY OF THE COMPARATIVE EFFECTIVENESS OF TWO METHODS OF TEACHING READING TO HISPANIC (ESL) ENGLISH AS A SECOND LANGUAGE COLLEGE STUDENTS

By

Stephen P. O'Neill

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College administrators have been challenged to re-evaluate their English as a Second Language programs in light of meeting the reading needs of students. Are the current comprehensive ESL programs adequate or is there a need for a separate but complementary reading program? Which method, a classroom based method or an independent reading laboratory method, is appropriate for which students? Is there a relationship between native language reading proficiency and the ability to read in English among ESL students? It has been the purpose of this study to investigate these questions.

The subjects were 101 Hispanic non-native speakers of English who were entering freshmen at an urban college. Scores on the Michigan Test of English Proficiency, the Nelson Denny Reading Test, and on a writing sample determined their eligibility to participate in the study. The Pruebas de Lectura, Cooperative Inter-American Test measured their ability to read in their native language. The students were randomly assigned to a control group or to either of two experimental groups: a classroom based method or an independent laboratory method. They were subsequently assigned within their groups to two subgroups: an English language reading proficiency subgroup; a native language reading proficiency subgroup. The posttest was the Nelson Denny Reading Test. The data were treated by two 3 x 3 analyses of variance according to Schefe's Post Hoc method. The statistics revealed that those students participating in a reading program made greater reading comprehension gains than those who did not participate ($p < .05$). There was no significant difference in the

performance of the two experimental groups, nor was there any significant interaction among the subgroups arranged according to English language proficiency. However an analysis of the native language subgroups disclosed that the students with greater native language fluency made significantly more progress in learning to read in English than those of lesser fluency ($p < .05$). Also students with high native language fluency made greater gains in reading comprehension with the independent reading laboratory method than with the classroom based method. Neither of two methods was effective with the low native language subgroups. The study has implications for the organization and the investigation of reading programs, the training of instructors to conduct independent reading programs, and the designing of content oriented materials for ESL students participating in an independent reading program.

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CHAPTER I

READING PROGRAMS FOR NON-NATIVE SPEAKERS OF ENGLISH

The Problem

The Open Admissions program has served to remind educators that minority groups value education as a means of entering more fully into the American way of life. Their emergence on college campuses has also served as a reminder that the quest for additional knowledge about individual learning styles that will allow for the prescription of strategies maximizing the learning opportunities of each student is still current.

One segment of the population that has responded to this egalitarian invitation to college education has been Hispanic non-native speakers of English. They too value education as a means of achieving greater social and professional mobility. Healy has estimated that over 30,000 Hispanic students have been admitted into the City University of New York since the inception of the Open Admissions program (1976, 170). Statistics have also shown that between 1969 and 1975, the Hispanic enrollment has climbed from 3.8 percent to 8.5 percent (CUNY Data Book, 1976, 120). While many of these Hispanic students have entered successfully into the academic mainstream, others have not, because of their limited fluency in reading in English.

Briggs has written that "the primary purpose in reading is to extract meaning from the written language" (1967, 225). There is a consensus among reading specialists that underlying the ability to extract

meaning is the development of vocabulary skills through a knowledge of affixes and roots and the mastering of literal and critical comprehension skills. These skills appear in the Appendix in the form of instructional objectives. They represent the syllabus of a basic reading course at an urban community college.

Given the assumption that the instructional objectives for basic reading courses are similar, how can college reading programs best serve the needs of the Hispanic student learning English as a second language? What are some of the factors that should be considered in creating alternate learning situations that would be compatible with the student's learning style? Certainly the area of format is important. Does the Hispanic ESL college student function more effectively in a classroom based situation or in an independent laboratory experience? The amount of structure is also an essential consideration. How important is the amount of instructor supervision, classroom time and peer interaction? Can the second language college student develop his reading fluency by working basically on his own, having periodic interviews with the instructor and utilizing the staff facilities of a reading laboratory? Finally what effect does the student's fluency in his native language have on his rate of reading growth in English and his compatibility with a particular learning style? Consequently in order to provide viable reading programs that will respond to the individual learning styles of each student, answers to these questions are needed.

Background to the Problem

There has been a consensus that significant inroads into the ills of society can be made through education. Fantini, a leader in developing

contemporary trends in education, has described the impact of this consensus on the educational system. He has remarked that while schools have been asked "to grapple with our monumental social problems: poverty, alienation, delinquency and racism," they have also been challenged "in the same breath to educate everyone, and simultaneously to develop the maximum potential of the individual student" (1970, 43).

More recently the concept of universal education has been extended to include higher education. One of the spokesmen for greater access to a higher educational experience has been Vice President Walter Mondale.

> Part of America's strength as a democratic society has historically rested on an enlightened citizenry. The accomplishments of our system of higher education in opening learning opportunities to even larger segments of society have been and should be a source of national pride. But times have changed, and we must now return to the job of providing greater access to learning for all Americans regardless of age or social and economic position. (1976, 42)

In the same vein, Birenbaum, former president of a community college in New York, has viewed community colleges as the salvation of the disadvantaged student. He has regarded these institutions as having the potential for being the vital connection between advanced educational opportunities and economic survival (1969, 157). Reflecting on the contribution of higher education to society, Holmstrom has concluded that "college is still the major vehicle of social mobility and personal fulfillment for millions of Americans" (1976, 154).

The concept of universal higher education received an important impetus from the Truman Commission on Higher Education, 1946-47. Responding to the number of high school graduates desiring a college education, the growing demands of business and industry for technically trained personnel, and the desire of financially pressed parents who wanted their

children to have the opportunity to attend college, the Truman Commission advocated "equal educational opportunities for all persons to the maximum of their individual abilities and without regard to economic status, race, creed, color, sex, national origin, or ancestry... as a major goal of American democracy" (Higher Education, 1947, 2, 7). Within this philosophy the Commission urged that universal education be extended to the 13th and 14th grades. Ten years later, President Eisenhower's Committee on Education Beyond the High School, 1955 - 56, made a similar statement (1957, 12). In 1964 the National Education Association also endorsed the expansion of universal educational opportunities to at least two years of college beyond the twelfth grade (NEA, 1964, 12). Perhaps the most important current document on increased access to higher education has been produced by the Carnegie Commission on Higher Education. The report has deplored the fact that large segments of the population, particularly those in lower income brackets, are denied their rightful opportunities to attend college. It recommended the creation of additional community colleges to meet the needs of those people wishing to pursue a post secondary school education (Carnegie, 1970, 51).

For the Black community benchmarks that have increased its opportunities for a higher education experience have also been cited.

> In 1949, the National Scholarship Service Fund for Negro Students was established, the first major effort intended specifically to increase Black enrollment at white colleges. In 1958, the National Defense Education Act was the first federal legislation to give impetus to the recruitment of Blacks by higher education institutions, Federal and New York State legislation in 1964 marked the beginning of pre-college programs to assist Blacks and Puerto Ricans to prepare for college. In 1968 with the death of Martin Luther King Jr., colleges undertook aggressive recruitment efforts to increase minority access to higher education. (Rempson, 1972, 2)

The New Generation of College Student

Who are the people who have responded to this egalitarian invitation? Meister has described them as unlike those of previous generations in ability, goals, or backgrounds.

> ... unprecedented numbers of high school students now seeking college admission... have suffered the debilitating effects of social and economic distress in home, neighborhood and social facilities. Many are concentrated in particular ethnic groups whose members are, in increasing numbers, now seeking to scale the upper rungs of the educational ladder. (1962, 79)

More than ten years later, Cross has described the new generation of student in a similar fashion with one added note. She has pointed out that while it is true that the majority of the students with serious academic deficiencies are from socially and economically disadvantaged backgrounds, more than one quarter of this generation who have been unsuccessful in a traditional education setting are the children of fathers who have attended college. "Individually and collectively their learning problems are just as tragic - their sense of school failure just as pervasive - as those of their financially disadvantaged peers" (1974, 16). Garrison has reported that "Many of them are functionally illiterate --or close to it. Some of them are very bright indeed but have never worked even close to their potential. At least half of the students at any given junior college need some sort of remedial work, either in reading and writing or in mathematics and science" (1968, 10). Garrison's findings have been supported by Bossone's studies (1970, 1973) of the community colleges of New York. At Bronx Community College, an urban community college, Norman Eagle, the Director of Institutional Research, has revealed that 74 percent of the entering freshmen in the Fall of 1974 required placement in a remedial reading course or a remedial English course.

The Department of Special Educational Services at the same college made a further refinement of Eagle's findings. In a report to the college's Curriculum Committee, it noted that within the remedial population, 74 percent of the entering freshmen, 58 percent are now reading at or below the 9th grade reading level. Furthermore the report stated that over the three year period, 1973 - 75, the average grade level of the below 9th grade reading group has dropped "about 1.5 years, from 7.9 to 6.4" (1975). A similar pattern was reported in another study of an urban community college (Ehrlich & Berger, 1973). In summary, Fryburg has aptly assessed the academic scene when she concluded that "the entering freshmen present their teachers with an extraordinary range of intellectual ability and cultural background" (1972, 1).

While the current college student is unlike his predecessor from an academic perspective, he is also unlike him in age and attendance. There is a growing number of adult students who are joining the college population. Moreover there is an increasing number of students who are electing to attend on a part-time basis. The Committee on Financing of Higher Education for Adult Students, 1974, has reported that 57.5 percent of the total student body in 1972 were part-time students. This represented a 2.5 percent increase over 1969. A more recent report has shown that state colleges and universities have also experienced large increases in part-time enrollments during the period from 1969 to 1974. Geographically these increases were 49 percent in the South, 45 percent in the Midwest, 25 percent in the West and 12 percent in the East (Stampen, 1976).

An Education for Each Student

Mere access to college is neither sufficient nor just for this nontraditional generation of student. Monroe has warned that colleges must demonstrate some protective concern in the form of relevant courses to meet the individual needs of the students (1975, 27). Fantini has cautioned against molding the student to the institution.

> Modern education should be tied to the needs of society, of groups and of individuals... An obsolete educational institution handicaps all learners, teachers ... and the larger societies. Thus we are all disadvantaged. (1970, 43)

Cross has echoed a similar viewpoint:

> New students will be the losers if we concentrate on access programs that merely assure the entrance of New Students into traditional programs of education. Why can't we, just for once, make new educational programs to fit New Students instead of handing down the old education of traditional students? Perhaps the old education is not as worn out as some traditional students maintain, but like second-hand clothing it is ill fitting for most New Students. (1974, 158)

Commenting on the progress made thus far, Monroe has stated that "a good educational program for realizing the dream of opportunities for education beyond high school for all youth has yet to be discovered" (1975, 119).

Hence there is a need for colleges to continue to re-evaluate their programs in light of the individual needs of the nontraditional student. Are the programs relevant? Do they provide alternate learning modalities that are compatible with the learning strategies of each student? It is not the comparative effectiveness of the instructional program, lecture versus discussion method which is important, but which method is most effective for which student (Cross, 1974; Rosen, 1970). The goal of educational planners should not be an education for all students, but an education for each student. Consequently there is a need for additional

investigation into the learning styles of students if higher education is truly to maximize the potential of each student.

The Hispanic Non-Native Speaker of English

As a result of Puerto Rico's relationship with the United States, the political strife in Santo Domingo, Cuba and its Spanish neighbors, many Hispanics have immigrated to the United States. The 1970 census report has revealed that there has been an increase of 31.3 percent in the migration of citizens of Puerto Rican birth to the United States mainland. Ten percent of these native born Puerto Ricans have settled in the New York City area (US Census, 1E, 7). However their migration has not been a pleasant experience. Senior has noted that their inability to communicate effectively in English compounded the discrimination in housing and employment with which they were confronted (1965, 40). Consequently they recognize that the open admissions policy is an essential vehicle for them not only to learn how to read in English but also to develop other skills which will provide opportunities for greater social and professional mobility in their new milieu.

Traditionally, reading instruction in English for non-native speakers of English, ESL students, has been the responsibility of the comprehensive English as a Second Language class. Up to a decade ago ESL students entering English speaking universities in the United States were few in number. They were generally from middle class backgrounds. Moreover they presented strong academic credentials from their native lands and were able to demonstrate adequate competence in English. The combination of any of these factors indicated a reasonable adjustment to the traditional American educational system. Enrollment in a one semester ESL course

generally provided the necessary additional attention for these students to participate in their various curricula. For the most part the focus of the course was on the development of oral and written skills.

However with the advent of an open admissions policy, the ranks of the ESL college student have grown dramatically. With the growth in numbers there has been a parallel growth in the range of student abilities and backgrounds. In response to this situation, administrators of one university have proposed the establishment of language centers throughout the system where the non-native speaker would be tested and placed into one of three programs: basic, intermediate or advanced, according to his needs. Once again the major focus of these courses would be oral and written instruction.

However it has become evident that in addition to oral and written skills, some of the present generation of ESL students would benefit from instruction in reading in English.

> Despite a current trend toward acceptance of cultural and ethnic identities apart from the American mainstream, linguistic assimilation is still a practical necessity in a society in which language - whether in business, education, or in entertainment - is the cultural common denominator of national life. And despite the flood of oral-aural media, the ability to read English is still a major necessity for the immigrant, whether he wishes an education, a driver's license, or simply a fresh cake baked according to package directions. Indeed without the ability to read, the immigrant may find himself sinking to the bottom of the melting pot. (Franke, 1976, 232)

Thonis has cautioned that these programs should be conscious of the special needs of the ESL studnet and not simply duplicate the existing programs.

> Reading programs as they are presently designed are totally unsuited to the reading needs of native Spanish speaking pupils ... They have not been given sufficient time for new language skills to grow but have been expected to move along at the same pace with their English speaking classmates. The traditional reading programs

> must be re-examined and re-evaluated in light of today's evidence of the reading failure of Spanish speaking pupils. (1976, 23)

Rosen has also urged that programs:

> ... particularly those in second language or reading correction for pupils of Spanish speaking backgrounds must increasingly move toward more research oriented approaches designed around seeking answers to fundamental questions rather than superficial trials and demonstrations of equipment. (1970, 288)

Like Bruner, Rempson and Cross, he also stressed the fact that:

> Variables must be identified in such programs which supply precise information as to what in specific approaches is effective and efficient for various types of pupils in realizing significant changes in desired language and reading outcomes. (1970, 288)

The Purpose

The purpose of this study is threefold:

1. to investigate the need for reading programs for Hispanic non-native speakers of English who are also participating in English as a Second Language classes;
2. to investigate the comparative effectiveness of two instructional methods, a classroom based method and an independent reading laboratory method, in the teaching of reading skills to Hispanic college students who are learning English as a second language;
3. to ascertain the relationship between the ability to read in one's native language and the ability to develop reading skills in English among Hispanic ESL college students.

Hypotheses

1. Hispanic college students attending a traditional English as a Second Language class and participating in a reading program for ESL students will not make more progress in developing reading comprehension skills, significant at the .05 level, than those

Hispanic college students attending only the traditional comprehensive English as a Second Language class.

2. Hispanic ESL college students participating in a classroom based method in reading will not make more progress in developing reading comprehension skills, as measured by the Nelson Denny Reading Test, significant at the .05 level, than those Hispanic ESL college students participating in the independent laboratory program in reading.

3. Hispanic ESL college students who have higher scores in reading comprehension in their native language as measured by the Pruebas de Lectura, Cooperative Inter-American Reading Test, will not make more progress in developing reading skills in English as measured by the Nelson Denny Reading Test, significant at the .05 level, than those Hispanic ESL college students of lesser native language fluency.

Significance of the Study

The study is significant because it has responded to the need for additional research in the area of reading programs for the current non-traditional college student (Kendricks & Thomas, 1970; Monroe, 1975; Roueche & Wade, 1974). Secondly, it has contributed to the specialized area in which there is a dearth of information, reading and the ESL college student (Hatch, 1977; Tarone, Swain & Fathman, 1976). It has examined the comparative effectiveness of two instructional methods, a classroom based method and an independent reading laboratory method for ESL college students. Thirdly it is also significant because it has investigated the influence of ESL students' native language reading proficiency on their ability to learn to read in English, a variable which has supplied

information as what method is appropriate for which students. Furthermore the study is significant in that as effective learning options in reading are discovered for each student, particularly the non-native speaker of English, greater academic, occupational and social mobility will become a reality for him.

The Organization of the Study

The study has been organized into five chapters. In the first chapter, the problem, the background to the problem, the threefold purpose of the study, the hypotheses, and the significance of the study, are set forth. The second chapter has presented a review of the literature related to college reading programs for ESL students, independent study programs, and the influence of native language proficiency in second language learning. Chapter Three has set forth the methodology of the study. There is a description of such topics as: the selection and the assignment of subjects to treatment groups as well as subgroups, the testing instruments that have been used, the instructors who have participated in the study, the collection and the treatment of data, and the assumptions and the limitations of the study. The findings of the experiment are presented in Chapter Four. In addition to a summary in Chapter Five, conclusions as well as implications for future research have been set forth.

CHAPTER II

REVIEW OF RELATED LITERATURE

In view of the arrival of the nontraditional ESL student on college campuses and the challenge to design instructional alternatives compatible with the student's learning style, this chapter proposes to examine the effectiveness of ESL college reading programs. Furthermore in light of the philosophy that no one method is appropriate for all students, an investigation of an independent reading laboratory approach as an alternate mode of instruction will be undertaken. Moreover, since this study is concerned with the reading needs of ESL students, attention will also be given to the influence of the student's proficiency in reading in his native language on his ability to learn to read in English.

College Reading Programs for ESL Students

Although there has been an increase in the amount of research in English as a Second Language (ESL) over the past decade, the field is still in its infancy. Consequently the current information is inadequate for the classroom instructor to obtain guidelines needed to effect methodological changes. A comprehensive survey of the current research has revealed several limitations.

> The linguistic scope of the research undertaken to date has been quite limited;
> research is just beginning to investigate the cognitive processes

> and learning strategies which underlie successful second language acquisition;
> current research has not systematically evaluated the influence on second language acquisition of several important variables. What is the effect of age, sex, and personality? Is ability in the native language related to success in learning a second language?
> the methodology used in the collection of second language data is still in a developmental stage;
> few second language acquisition studies have been replicated by other researchers. (Tarone et al., 1976, 20-1)

Research of college reading programs for ESL students is equally limited. Hatch has reflected the disorder and frustration about the need for further investigations and the complexity of the task.

> The research on reading in a second language is both interesting and confusing. I'm not certain that it would be less confusing if there were more of it. Yet there are many areas which need to be investigated. Answers for one age group or one proficiency level are not the answers for another. Considering the number of children who are enrolled in our schools for whom English is a second language and the number of adults who are studying English ... it is surprising how little attention has been paid to their reading problems. (1974, 59)

Speaking of the suitability of reading programs for Spanish second language learners, Thonis has stated:

> Reading programs as they are presently designed for native speakers of English are totally unsuited to the reading needs of native Spanish speaking pupils. They have found little in the cultural content of reading material that makes sense to them. They have not been given sufficient time for new language skills to grow but have been expected to move along at the same pace with their native English speaking classmates... The traditional reading programs must be re-examined and re-evaluated in the light of today's evidence of the reading failure of Spanish speaking pupils. (1976, 24)

The majority of reading programs for non-native speakers of English have been implemented on the elementary and junior high school level. The need for college reading programs for ESL students has become more evident with the inception of the open admissions policy and the arrival of the nontraditional generation of ESL students. In an interview with

Dutra (1977), an associate in the Counsellor Learning methodology and an experienced international ESL instructor, she related the evolution of this current generation of ESL college students and their need for special reading programs. For the most part they reflect the social, economic and educational disadvantages of their native English speaking counterparts. Perhaps the factor that most distinguishes one group from the other is the inability of the ESL student to function fluently in the English language. Dutra recalled that the non-English speaking students who came to this country a decade or more ago were generally products of middle class families and educations. In addition to having successful secondary school records, this earlier generation of ESL students were able to demonstrate a basic command of English. Hence a one or two semester comprehensive ESL course which emphasized oral and written development, was sufficient to enable these students to enter an English speaking college curriculum.

On the other hand, many of the current generation of ESL students come from lower socioeconomic backgrounds. In many instances their schooling was interrupted when they embarked for the United States from their native lands. On arrival the need for financial security deterred them from continuing their education. For others the burden of adjusting to a new culture, a new language, and a school system that was ill prepared to meet their needs, caused many of them to discontinue their education. Ultimately the desire to communicate effectively in English so as to become more socially and occupationally mobile encouraged more and more individuals to take advantage of higher education's open admissions policy. Like many of her colleagues (Been, 1975; Saville-Troike, 1973; Tullius, 1971), Dutra

indicated that the arrival of this nontraditional ESL student has challenged authorities to re-evaluate their programs. The traditional emphasis on oral and written development is no longer sufficient and must be extended to include reading skills development. "These programs must recognize reading as a skill in and of itself instead of merely reinforcement for orally introduced structures and vocabulary if they are to produce fluent readers as well" (Been, 1975, 340).

One attempt to respond to the challenge of this new ESL student was related in an interview with Davidson (1977), a member of the City University of New York's ESL Council. Davidson has supervised the only ESL program in the City University system that provides a special reading program for ESL students. He reported to this investigator that a proposal to establish ESL centers on several of the university's campuses is presently under consideration. A three tiered program (basic, intermediate, advanced levels) would be designed to develop the English language skills to a level that would enable the student to enter the academic mainstream more readily. The length of time that each student would remain in this intensive program would depend on the initial diagnosis and subsequent progress of the individual student.

College Reading Programs

An informal survey by this investigator of ESL programs in the New York - New Jersey area has revealed that the ESL students who are advised to take a reading skills course are generally assigned to one of the regular reading courses for native speakers. While it has already been pointed out that such procedures rarely meet the special needs of the ESL students

(Been, 1975; Rosen, 1970; Thonis, 1976), it is also important to note that this procedure has also contributed to the complexity of retrieving statistical data which will provide an indication of whether the second language learner's needs are being met. In short the ESL student who is placed in a regular reading course becomes an anonymous statistic in the catch-all category known as the disadvantaged reader.

In view of this situation, how effective then have college reading programs been? How much do they influence students' academic achievement? In a refined presentation of her initial report on college reading programs from 1930 through 1944, Fairbanks (1974) investigated 79 reading programs. Using grade point average (GPA) as the criterion for measuring the effectiveness of the programs she related:

> Sixty of the 79 studies reported the use of some type of comparison group, made some mention of statistical procedures utilized in determining results, and referred to the level of significance of results. Thirty of these studies indicated that the programs had been "successful" in that improvement or superiority in overall GPA favored the reading improvement group, significant at the .05 level... Grade point average comparisons favored the experimental group in an additional 18 studies, but results lacked significance at the .05 level... Twelve studies indicated no measurable advantage with regard to GPA for the group participating in the college reading improvement program. (1974, 105)

Fairbanks cautioned that the findings must be considered highly tentative because of the inability of investigators to control certain variables such as voluntary and nonvoluntary subjects, use of undergraduate and graduate students, age and sex (1974, 110).

Tillman experienced similar limitations in the methodological procedures of the studies which he investigated. Many of the 31 programs which he studied failed to utilize a control group. Understanding this background the investigator reported that although 23 of the 31 studies were found to be statistically significant, gain in grade point average was associated

with participation in a reading program. However grade point gains tended to be small (1973, 109).

Santeusanio cautioned about using the grade point average as the sole criterion for measuring the effectiveness of reading programs. He stated that the evaluation of remediation using grade point average gives inconsistent results. He cited 11 studies with positive results and 13 studies that showed no relationship between grades and enrollment in a reading and study skills course. Like Fairbanks, he questioned many of the findings on the grounds of inadequate research design and concluded "that the effectiveness of college reading and study skills programs is not well established" and that a great number of college reading and study skills programs "are not serving their purpose" (1974, 267).

Thomas and Kendrick (1970), Evans and Dubois (1972), and Losak(1972) are just a few who have echoed Santeusanio's observations on the methodological limitations of the majority of research on college reading programs. Losak has challenged the reliability of research findings which were not conducted with control groups.

> Control groups are generally non existent in educational research. One major reason is that somehow it is "immoral" not to permit students to enroll in a program that we believe is good for them. However without using a control group, one has no basis for the assumption that it is academically good for the student to spend a semester in remedial work. (1972, 384)

Utilizing a control group, he then conducted a study at a large urban community college to assess the accountability of its reading-writing program. Students who scored on or below the 21st percentile on local norms of the College Ability Test, Form 1A and who were designated as academically unprepared, were used in the study. There were 427 students in the experimental group and only 73 in the control group which took the

regular college level English course. Losak pointed out that at the end of the first semester the experimental group earned a significantly higher grade point average than the control group ($p < .001$). However the mean grade point average of 1.83 was well below the general average of 2.06, the GPA of the entire freshmen population. At the end of the second semester the experimental group's GPA dropped from 1.83 to 1.59 while the control group remained at 1.47. In summary the resulting data did not show any meaningful differences in student withdrawals from college or in grade point average during the second semester of college. Also the findings did not reflect higher scores on writing and reading tests for those students in the remedial program than those in a randomly selected control group who did not participate in the program. Similar to Santeusanio's findings (1974), Losak's data demonstrated that the remedial program did not provide participating students with any signficant academic advantages over similarly underprepared students who did not participate.

However, having previously criticized remediation programs in general, Roueche wrote:

> There is a paucity of research on the efficacy of remedial programs in the junior college... Available research will not support the contention that junior colleges offer programs that in fact remedy student deficiencies. Programs are indeed offered, but the entire issue of remedying deficiencies has not been sufficiently researched. (1968, 47)

Roueche and Kirk conducted a study of five community colleges chosen because of their innovative remedial programs. This study was undertaken

> ... in order to determine the extent to which the most recent and optimistic approaches to remedial programs have proved effective in increasing persistence, improving academic performance and cultivating positive feelings toward learning among low-achieving students. (1974, 11)

The investigators found that the 139 students enrolled in these innovative programs made significantly higher grades than comparable students in non-remedial programs. "Students in remedial programs earned a GPA of 2.66, almost three-fourths of a grade point higher than the 1.96 earned by high-risk students in non-remedial programs" (55). The study also revealed that black students in remedial programs earned a mean GPA of 2.94 while comparable black students in non-remedial programs earned no higher than a mean GPA of 1.98. Likewise white students in remedial programs earned a mean GPA of 2.49 compared to a mean GPA of 1.84 earned by high risk white students in non-remedial programs (55). It was also noted that the academic performance of students in remedial programs dropped significantly after they entered regular college programs. Losak (1972) also noted this phenomenon. Roueche and Kirk attributed this to a re-entry shock from remedial courses into regular college courses. Nevertheless, by the third semester the students who had enrolled in the remedial programs had a higher rate of persistence in their studies than their non-participating, high risk counterparts. However, the persisting participants remained in the lower echelons of academic achievement, a D average (59). Finally, like Fairbanks (1974) and Maxwell (1971), the investigators discovered and acknowledged the significance of an active counselling component in a remedial program.

While the general results of the study can be appreciated, its overwhelming reliance on GPA, as many other studies have done, has limited its reliability. Goldman and Slaughter (1976) investigated the general dissatisfaction with the GPA as a predictor. They demonstrated that the lack of uniformity in testing procedures and in grading standards in different classes and among different instructors militates against a

controlled study using GPA as a sole criterion of measurement. Furthermore, with Losak (1972) they were inclined to believe that low ability students tend to gravitate toward fields with lax grading standards. In support of this contention they referred to studies by Goldman and Hewitt, 1975; Goldman, Schmidt, Hewitt and Fisher, 1974 (1976, 9).

While college reading programs have produced, at best, inconsistent results, one wonders if additional data might have been forthcoming if more investigators had examined the populations in terms of various subgroups, e.g. ability subgroups (Borg & Gall, 1971, 385).

One investigator who did pursue this stratified approach was Anderson (1973). The subjects for this study were 111 students who had scored below the 25th percentile on the Cooperative Reading Test. He studied the amount of gain that the students who had successfully passed the three credit course had made. The results showed that those students with the lowest pretest scores made the greatest gains in vocabulary, comprehension and speed. The middle ability students made the next best progress with gains in vocabulary and comprehension but with a slight loss in speed. High ability students gained the least, "with progress in vocabulary, but with small losses in comprehension and speed" (1973, 8).

Similar stratified studies were conducted by Ehrlich and Berger (1973, 27). In a study of 1972 and 1973 entering freshmen at an urban community college, the authors observed that the "degree of improvement in the basic skills was directly related to the initial level of performance; that is, the poorer the skills initially, the larger was the gain" (1973, 27). Again, one of the major limitations of the studies is that they did not use a control group. The use of a control group would have

established "a suitable control so that any change in the dependent variable can be attributed only to the independent variable that was manipulated by the researcher" (Borg & Gall, 1974, 380).

Thus far the review of the literature has shown that in light of higher education's commitment to an open admissions policy, and the arrival of a nontraditional generation of second language learners on college campuses, ESL reading programs are only presently being developed. Moreover an investigation of the traditional college reading programs, into which ESL students have been placed, has proven inconsistent, confusing and limiting -- inconsistent in that there is no apparent pattern which supports the effectiveness of these programs -- confusing because the research design in many of the studies was less than adequate. Control over such variables as motivation, age and an academic background was lacking. The research was also limiting in that the investigations confined themselves to overall comparisons of programs rather than to the compatibility of the program to the individual learning styles of the students.

Independent Study

> The fact of individual differences argues for pluralism and for enlightened opportunism in the materials and methods of instruction... A curriculum in short, must contain many tracks leading to the same goal. (Bruner, 1960)

> While we do not know enough about individual learning styles to prescribe strategies that will maximize learning for a given person, it is clear that we need to give more attention to offering pluralistic alternatives. (Cross, 1975, 59)

Is an independent study approach, then a possible route for exploring alternate learning styles for ESL college students? Because of its continuously evolving definition, this question has not been tested adequately.

Independent study was initially designed as a challenge for brighter students. One of the earliest surveys of independent study in American education was conducted in 1924 by Aydelotte. At that time the terms honors course or honors work were used instead of the term independent study. The purpose of honors work was to free the brighter students from the traditional lock-step method which, Aydelotte felt, penalized them and failed to develop their potential. The designers of these courses intended to make these students more responsible for their "intellectual salvation" (Aydelotte, 1925, 5). Admission to the early programs was predominantly on "conspicuous ability; two thirds of the colleges required outstanding general scholarship" Umstattd, 1935, 365). While the intellectual criteria for admission were stringent, the amount of student self direction was very limited. Arrangements and projects were chosen for the students by their instructors.

In 1954, Bonthius, Davis and Drushal published the results of the first complete survey of independent programs which refined the concept of independent study. Unlike previous studies which allowed seminars and other groups activities, independent study was restricted to:

> ... study by individual students under the guidance of faculty advisors, independent of organized courses, for honors only or for credit toward graduation, available to students who meet certain requirements, or required of all students. (1954, 412)

Moreover, the results of the survey showed an increase in the number of programs open to all undergraduates and an increase in concern for the average student who wanted independent study. Studies by Brick and McGrath (1969), and Dressel and DeLisle (1969) also confirmed its availability to all students on all levels in contrast with its earlier restriction to superior students. At the same time they noted the shift in

terminology from the name honors work to independent study.

The appropriateness of this learning strategy has been controversial. Traditionalists still view independent study as the privilege of the intelligentsia. Almost as a natural argument for this elitist concept, Biehler (1971, 167) has observed that there is a tendency for bright students with high grades to choose independent projects, and less bright students to choose tasks that are characteristic of dependency. Supporting this tendency was the result of an investigation by Hill, in which he found that superior students "performed equally well in either situation whereas poorer students profited more from direction and structure in class procedures" (1960, 208). However this elitist position is gradually becoming less popular. This is not to say that the opposite extreme, independent study for all students, advocated by Trump (Biehler, 479), is now in vogue. It would be more accurate to say that independent study is being explored for possible use with a broader range of students. Congreve (1965, 222) recalled from his personal experience that while some students just could not bring themselves to operate in a manner conducive to learning with an independent study approach, others could perform quite adequately. More specifically Dearing sees "a bold imaginative and responsible student with moderate ability" succeeding in an independent study program, "whereas a highly endowed student with an indolent, passive or irresponsibly individualistic disposition may fail" (1965, 55).

Independent study is also seen as the solace of the slow learner.

> Although independent study has been thought of most often as a release of the swift and able learner from bondage of a plodding pace, permitting him to leap with joy; it may equally well be thought of an an emancipation of the slower but still respectable learner from a dizzying pace that leaves him baffled and defeated. (Baskin, 1962, 5)

The wide range of opinions on the appropriateness of this method has been surpassed only by the variety of definitions for the term. Dressel and Thompson have concluded as a result of their survey

> that to compare the findings from previous surveys of independent study practices with each other is impossible because the definition of independent study has ranged from anything an institution cared to call by this name to a specifically individual study. (1973, 140)

The lack of agreement on a common definition has provided the opportunity for educators to focus on the concept of student autonomy or freedom within the independent study approach. Contrary to the early days of independent study where the student merely followed the instructor's directions, today's educators are now inclined to make the student more responsible for his own learning. Learning has become more student centered and student directed. However learning under this philosophy is not left to chance, as Karlin (1964, 60) suggested, rather the student and the instructor work from a cooperative posture. The teacher acts as a diagnostician and as a resource person for the student. He holds periodic conferences to assess progress and to provide feedback for the student. Meanwhile the student goes about completing his tasks on his own or in a small group. Hence the student "is not a bench-bound listener" but is taking a part "in the formulation of his education and at times playing the principal role in it" (Bruner, 1961, 23).

A recent study (Rakes, Lints, & Payton, 1974) was undertaken to compare the student centered reading laboratory approach and the traditional lecture-discussion approach. The student centered approach was organized on a competency based format. The subjects were 61 high risk students who were predominantly black. They were participating in a Memphis State University Summer Education Program. The California Reading Test, Form W

and X respectively, were used as the pre and posttest instruments for the eight-week instructional period. The two traditional classes which composed the control group, experienced the lecture-discussion, outside assignments and inclass laboratory sessions. The two competency based classes, constituting the experimental group, used modular units based on the same curricular content as the traditional sections but they were presented through introductory lectures, audio tapes, and self instructional units. Students were channeled into individual and small groups in a laboratory setting. Each instructor taught one control class and one experimental class. "This procedure, while negating some teacher effects, also provided other noncontrollable elements such as familiarity with materials, extended work sessions, and the side effects created by comparing the new with the old" (1974, 283).

The results of the study indicated that a significant gain ($p < .005$) in reading achievement was evidenced by the 31 students enrolled in the two experimental sections of the college reading course. However, no significant gain was indicated by the 30 students enrolled in the traditional sections. From an economical point of view, it was mentioned that the initial cost of operating the competency based program was three times that of operating the traditionally-organized classes (283).

Santeusanio (1974) also investigated the independent student-directed approach in a laboratory setting as an alternate mode of instruction to the traditional teacher-directed approach. As a critic of the majority of college reading research for faulty methodology and lack of insight in not recognizing the influence of individual differences, Santeusanio attempted to identify the types of students who benefit from different instruc-

tional delivery systems. Thus he selected 87 Suffolk University students who scored below 475 on the Scholastic Aptitude Test - Verbal Section and graduated in the bottom 60th percent of their high school class. Unlike other investigators (Rakes et al., 1974; Maxwell, 1971), Santeusanio's methodology included a control group in addition to the two instructional groups (the student-directed group and the teacher-directed group). The course was a required non-credit reading skills course (1974, 267).

When the experimental groups were compared for differences on the amount of reading gain made on the Nelson Denny Reading Test and on the McGraw-Hill Basic Skills System, unlike Rakes' results, no significant differences were evident. Also when the experimental groups and the control group were compared on GPA for the Fall and Spring semester, no significant difference was found, except for those who had high verbal scores in the teacher-directed approach. However, this was evident only in the Fall semester. These results supported Santeusanio's and Losak's contention that attendance in a college reading program, per se, did not insure academic success. Secondly it gave impetus to his belief that reading research should not continue to rely so heavily on main effect studies in which one total group or program is contrasted with another. Like a growing number of educators, Santeusanio believes that no one reading program or method is appropriate for all students. It is necessary, therefore, to explore various student characteristics that might indicate a certain compatibility with a particular instructional method.

As a result of administering the Taylor Manifest Anxiety Scale, Santeusanio discovered that high scoring students' learning is facilitated by a student-directed approach while low scoring students profit more from

a teacher-directed classroom approach. In addition scores from the James Internal-External Scale revealed that the externally oriented students' learning style was more compatible with a student-directed approach. On the other hand students who tend to be introverted adjusted better to a teacher-directed style. The results of the Preferred Instructor Characteristic Scale showed that the student who preferred a cognitive type instructor profited more from the independent student-directed learning style. In contrast the more a student preferred an affective oriented instructor, the more his learning was facilitated by teacher-directed instruction (1972, 52).

Santeusanio cautioned that these results should be viewed as preliminary investigations heralding what has yet to be done. He called for duplications of the study with larger populations for the purpose of verifying his own findings and for providing additional insight into creating compatible instructional modes for each student's learning style.

A by-product of matching instructional modes with the individual student's learning style is a reduction in student anxiety. Terrell (1976) studied 51 freshmen who were enrolled in an audio-tutorial life science course at Oakland Community College, Michigan. The subjects were administered the Cognitive Style Diagnostic Test Battery to ascertain their cognitive style and the State-Trait Anxiety Inventory to determine their anxiety level: high, middle, low. The findings support the fact that there is a greater reduction in anxiety levels in those students who were classified as having high anxiety traits and whose learning styles were matched with compatible instructional methods than those who were nonmatched. In conclusion, the author suggested that "future research

should examine the notion that matching students with an appropriate instructional mode would stimulate those students to achieve" (1976, 23).

Alternate instructional modes, effects of various methodologies on subgroups within the treatment groups, the amount of student-teacher interaction, and student autonomy in an independent setting also attracted the attention of McHargue (1975). His subjects were 108 non-remedial volunteer Stanford University students. In order to better study the amount of structure in the independent approach, the investigator designed two student-centered programs with varying amounts of student autonomy. In the Self-Paced program, the 28 students were provided with programmed packets of materials which were to be completed before the end of the nine week instructional period. The Self-Managed group was given the same instructional packets as the Self-Paced group. However with this latter group, also composed of 28 students, stress was placed on teaching self-management techniques prior to undertaking their reading tasks. The difference between the two groups was that the Self-Managed group received initial training in how to organize themselves in order to complete their tasks more effectively.

These two instructional modes were compared with a third treatment group, the traditional classroom approach. The subjects in this group attended class sessions twice a week and were directed by an instructor. They were also required to complete homework assignments.

Finally the fourth group in the study was the control group who did not receive any treatment. However, rather than being composed of students who simply did not take or did not want to take the course, this group of 24 students were students who indeed wanted to take the course

but were not able to because the class sections were closed when they attempted to register. Since they expressed an interest in the program, attitudinally they became better subjects to serve as members of a control group.

The results of the study showed that each of the treatment groups was significantly better than the control group. However, in terms of which treatment group was most effective, statistics revealed that there was no statistically significant difference among the treatment groups themselves (1975, 79). Nevertheless the Self-Managed group had the highest mean score followed by the Classroom group. But it should be noted that the mean difference between the Self-Managed group and the Self-Paced group was very small. One possible reason was the lack of distinctiveness between the two groups. Aside from the initial Self-Management Instruction at the beginning of the semester, the two programs were not significantly dissimilar. Hence it was difficult to compare effectively the two treatment groups. While the effort to ascertain the amount of student autonomy in independent programs was laudable, the difficulties that were encountered only serve to indicate the necessity for additional research in this area.

McHargue analyzed his results according to students' descriptions of themselves. Those who described themselves as autonomous and who were in the Self-Managed group made greater gains than their alter egos in the Self-Paced group who did poorly. Students who described themselves as motivated also did better in the Self-Managed group than those in the Classroom group and the Self-Paced group, in that order. The findings tend to be inconsistent in that those students who describe themselves as autonomous and/or motivated and who are placed in a Self-Paced program,

a program that provides a great deal of freedom, do not necessarily do better than similar students in other programs. One possible explanation is that the student's initial perception of himself is inaccurate. Also the fact that these students volunteered for this one credit program indicates that they might have had a need not only for vocabulary and reading comprehension skills but also for study skills techniques. The latter was offered formally only to those in the Self-Managed group, the group which did consistently better in the study.

A group which was apparently well matched were those students who described themselves as high achievers and who, in fact, were. They had the highest reading pretest scores. They continued this pattern throughout the study. They achieved the highest posttest reading scores and had the highest percentage of people completing the program. Seemingly, as students of this caliber are identified, they should be provided with the course objectives, appropriate materials and the freedom to accomplish their tasks. On the other hand, to place these students in a traditional classroom atmosphere might deter them from achieving their full potential. While it is probably true that students with the highest pretest scores generally receive the highest posttest scores, it is important to point out that in investigating compatible learning styles, the increased reading score, per se, is not the goal as much as it is the creation of a learning climate that is conducive to developing the student's abilities to the fullest.

Throughout the discussion of an independent reading laboratory method as an alternate mode of reading instruction, concern has been registered, directly and indirectly, about student autonomy as it is related to the

amount of student-instructor interaction. In studying a prescriptive method and a personalized method within the framework of a reading laboratory setting, Henderson investigated the influence of the interaction between the student and the instructor (1976, 465).

The personalized method was characterized by student goal setting, self selection of materials, and individual and small group conferences with the instructor for diagnostic and resources purposes. Conversely the prescriptive method stressed pre-established learning prescriptions based on diagnostic findings. Contrary to the personalized approach, the teachers in the prescriptive approach were available to the students but did not interact or provide directions unless the individual student requested it (467).

Sixty-two students from an Oklahoma Community College volunteered for the three-credit-hour course. They were randomly assigned to either the prescriptive or the personalized program. There was no control group. Reading achievement scores were obtained from the Nelson Denny Reading Test, Form C and D, while reading interest scores were recorded by the investigator's Collegiate Reading Interest Scale.

Using four 2 x 2 analyses of variance with an unweighted means solution because of the unequal sample size of the instructional groups, Henderson's results showed a "highly significant increase" in reading rate (190 to 278), and a significant increase at the .01 level, in reading interest regardless of the instructional method. However a comparative analysis of the two groups revealed a nonsignificant interaction despite the personalized group's better performance in each area. The same pattern prevailed in the vocabulary scores: overall gain significant at the .01

level with a nonsignificant interaction between the personalized subjects who did better and the prescriptive subjects.

The comprehension scores did not follow the same pattern completely. While the overall mean comprehension gain (28.47 to 34.70) was significant at the .01 level, the nonsignificant interaction between groups favored the prescriptive group. Aside from chance, Henderson felt that three possibilities might have influenced the comprehension results. To begin with, a more structured individualized program, like the prescriptive method, tends to favor greater gains in reading comprehension scores than a flexible personalized program. Secondly, the time and individual counseling "that is necessary for the establishment of realistic goals among the students instructed in the personalized method may have contributed more to affective growth (not measured in this study) than to reading comprehension" (Henderson, 470). Finally the author pointed out that the role of the instructor in this student-centered personalized approach required a skill in facilitative techniques that was not achieved (470). The final point is significant in that it reinforces Santeusanio's and Rakes' concern for training teachers to operate in student-centered programs since "many members of college faculties come from lecture-oriented backgrounds" (Dressel & Thompson, 1973, 145), wherein the teacher is the center of focus.

A review of the literature does not give a clear indication of whether or not an independent reading laboratory approach is a viable alternate mode of instruction for ESL college reading programs. In addition to the fact that there are so few ESL college reading programs, another reason for this dilemma is that the concept of independent reading programs is so diverse. While this does prevent educators from making

more confident generalizations, the situation is not incomprehensible because basic to the concept of independent study is the understanding that the ability to study independently is a goal as well as a process (Alexander & Hine, 1967).

Nevertheless the literature does reflect the concern of investigators and echoes their call for additional research in such areas as student autonomy, student-teacher interaction, the role of the teacher, and the psychological and academic types for whom this mode of instruction is most appropriate. There is also the implication that solutions to some of these questions can be resolved by studying the subgroups in the research population.

Native Language Proficiency

There seems to be a consensus, however indirect, that the degree of fluency in one's native language has a positive correlation with success in learning to read in a second language. According to Goodman, reading is a psycholinguistic process in which the reader guided by the knowledge of the language being read, reconstructs an encoded message by selecting syntactic and semantic cues as he proceeds (1964, 356). Goodman believes that the same basic principle is operative when reading in any language. Hence the person who has become proficient in detecting linguistic cues in his native language can transfer these same skills when learning to read in a second language.

> ... the most essential difference between learning the native language and a foreign language is that you have already learned (consciously or unconsciously) a set of rules - namely the set that governs the system of the native language. (Politzer, 1965, 8)

In his study of the reading problems of foreign students, Yorio has supported this contention that students do tend to fall back on semantic strategies peculiar to their native language when learning English vocabulary (1972, 115). Koo's analysis disclosed that the second language learner's speech does not really learn a new sound. He extends or reduces his native sound by adding or dropping a feature or a set of features to accommodate his new situation (1972, 145). This process is known in psychology as the transfer of learning (Lado, 1966, 123).

Bruner's concept of transformation in the learning process is compatible to this thinking. He sees transformation in learning as the manipulation of knowledge "to make it fit new tasks. We learn to unmask or analyze information to order it in a way that permits extrapolation or conversion into another form" (1974, 31). Hence it might be concluded for the purposes of this study that the degree of information that an individual can effect in reading a second language is related to his level of understanding of the principles of reading in his native language. While Thonis concurs, she points out additional factors which further facilitate the transference of skills from Spanish to English.

> The best predictor of success in a second language is success in the first language. Pupils who have mastered the print of Spanish have many abilities which transfer positively to the reading of English. Both languages share the same alphabetical principle and have common roots in the Roman alphabet. Spanish and English both are ordered in a left to right sequence. (1976, 61)

Educators have used this assumption of native language proficiency as the criterion for placing ESL students on various second language reading levels (Brooks, 1964, 206). It has also been a criterion for selecting instructional materials and techniques to be used (Finocchiaro, 1958, 9). On the other hand, Seng views the well learned native language as a mixed

blessing. "It facilitates language learning but at the same time causes interference, usually preventing the acquisition of accent-free second language skills" (1970, 114). Nevertheless while the ESL student's native language does provide initial benefits, the proficient second language learner will gradually relinquish his dependence on his native language structures as he develops skills in his second language.

> Because of their lack of familiarity with the new linguistic system, however, they also rely extensively on their native language for support. With increased proficiency in the target language, they rely proportionately less frequently on their native language grammar and rely more frequently on their ever increasing knowledge of the target language. (Taylor, 1975, 398)

In her discussion of second language learning, Barker has referred to this process as progress on the continuum of interlanguage whose ultimate goal is standard English (1974, 15).

It is ironical that while there is this consensus of opinion on the influence of native language reading proficiency on adult ESL reading skills, there is a paucity of research on it (Tarone et al., 1976). Correspondence with leaders in the field of English as a Second Language (Hatch, 1976; Muckley, 1976; Selger, 1977; Spolsky, 1976; Thonis, 1976) has confirmed this phenomenon in a personal manner.

Some studies, however, indirectly support the consensus. Modiano's study (1966) of three Mexican Indian tribes showed that young children who were trained to read in the vernacular before being introduced to a second language, the language of that particular school system, Spanish, ultimately comprehended better in both languages than those students who were instructed in the second language only. The Tarascan study (Barrera-Vasquez, 1953) also indicated that children introduced to reading in the vernacular first, read better in the second grade than those who were trained to read

only in the second language. The Marysville Project (Thonis, 1970) concurred with the previous findings. The investigator pointed out that after students have a command of their first language all they have to do is to learn a new code or a new labelling system for their second language. It is for this reason that other scholars (Ingram & Elias, 1974; Shuy, 1965) have argued that young children be permitted to learn to read or improve their reading in the dialect with which they are most familiar.

Kaufman attempted to experiment with this concept, but unfortunately it was after the fact. He wanted to determine if reading instruction in Spanish would affect students' ability to read in English. His subjects were seventh grade Spanish speaking students who were reading two or more years below grade level according to the Metropolitan Achievement Test. Forty-eight students were assigned to the control group while 37 students were assigned to the experimental group. Both groups were also tested with the Cooperative Inter-American Test. While the analysis of variance failed to reach a level of significance, the statistics tended to slightly favor the experimental group. The investigator took advantage of this to suggest that direct instruction in reading Spanish should be offered to Spanish speaking retarded readers because of its potential value as a source of transfer to reading ability in English (1968, 527).

While the intent of the study was laudable, its organization and execution left something to be desired. There was little control over the supervision of instruction which took place in two separate schools. Consideration of student motivation was not apparent. Correlation of individual student's ability to read in Spanish and their consequent progress in Spanish and in English reading skills was also not in evidence.

The results of studies which investigated a bilingual approach to instruction have also supported the influence of native language competency in developing language skills in a second language. The Alice, Texas Demonstration Project, 1973-74, studied 397 Spanish dominant children in grades one through four. The children were assigned to a control group in which they were instructed only in English, or they were assigned to an experimental group in which they were instructed in both Spanish and English. The results showed that the experimental groups of the first, third and fourth grades performed significantly better than the control group in learning to read and write in English as measured by the Inter-American Series - English Reading Test (Zappert & Cruz, 1977, 15). Moreover, having reviewed 66 investigations in which only one (1%) study was negative, 38 (58%) were positive and 27 (41%) were neutral, Zappert and Cruz strongly endorsed the use of the child's native language as a medium of instruction in the U.S. schools (1977, 40). For this investigation, this endorsement has also indirectly underscored the consensus that competence in one's native language provides a basis for an easier transition to and/or an acquisition of a second language.

Summary

In the keynote address at the Los Angeles Second Language Research Forum in February, 1977, Hatch described the state of the art of research in ESL as "wide open" (Peck, 213). A general review of the literature has indicated that it is no less a fact that the field of research in ESL reading methodologies is also wide open (Rosen, 1970; Saville-Troike, 1973; Tarone et al., 1976; Tullius, 1971).

The inception of higher education's egalitarian philosophy and the

subsequent arrival of a nontraditional generation of college students has brought about the necessity for reading programs which are designed to meet the special needs of ESL college students. It has also brought about the need for experimental research to determine which methods are most appropriate for which students (Thonis, 1976). A paucity of ESL college reading research has existed not only because of the lack of programs but also because ESL students have usually been placed in programs for native speakers, thus making it difficult to retrieve the necessary data.

The survey of the research on the traditional reading programs has yielded inconsistent results (Monroe, 1975; Roueche & Kirk, 1974; Santeusanio, 1974). For the most part, the investigations have been main-effect studies, basically comparing the overall effects of one program to another. There has also been insufficient concern for the interaction among the subgroups of the investigations in light of discovering more about the individual learning styles of the students. Moreover, many studies have been characterized by the absence of control group, the use of volunteer and nonvolunteer as well as graduate and undergraduate subjects in their populations. Many have also relied on grade point average as the sole criterion of their effectiveness. The less than satisfactory performance of the traditional college reading programs has only served to remind college administrators that there is no single panacea for an effective college reading program but that there is a need to explore a pluralistic approach in developing programs. That is, programs should contain various instructional approaches which will more effectively match the individual learning styles of each student (Bruner, 1961; Cronback & Snow, 1969; Cross, 1976).

In light of this conclusion, a review of the literature on independent reading laboratories was undertaken. The experience proved confusing because the concept of independent study has been so diversely perceived and applied (Dressel & Thompson, 140). However this is understandable in part because independent study or the ability to study independently is a goal as well as a process (Alexander & Hines, 1967). The survey has also shown that additional research is needed to ascertain better the amount of structure, student control and student - instructor interaction that is appropriate for the individual needs of students. While some attempts have been made in this direction, the conclusions have been limited because of the size and the composition of the sampling populations (McHargue, 1975; Santeusanio, 1974). Finally future studies should make greater efforts to control such variables as age and motivation.

In light of the current educational concern for matching instructional reading methods with the individual student's learning strategy, an investigation of the literature on the influence of an adult's native language reading proficiency on his ability to read English was pursued. The survey revealed that while many educators assume that there is a positive correlation, there are few direct studies available (Tarone et al., 1976; Thonis, 1976). The basis of the consensus has been the generally positive results from studies which support initial reading instruction in the child's most familiar language as the springboard for learning to read in a second language (Barrera-Vasquez, 1953; Modiano, 1968; Thonis, 1970; Zapperts & Cruz, 1977). Other educators have pointed out that many adult ESL students rely initially on their understanding of the reading process in their native language to cope with the acquisition of skills in their

second language (Krashen & Seliger, 1975; Yorio, 1972). Hence many assume that to the extent that one is knowledgeable in his native language, he will be able to transfer more readily these skills in learning English.

In short the age of the nontraditional college student has challenged researchers to develop pluralistic reading programs which are compatible to the cognitive styles of the individual student. For the ESL college student, one of the variables that must be investigated is the influence of his native language fluency.

It is appropriate then that this study has addressed itself to investigating the compatibility of two instructional methods, the classroom approach and the independent reading laboratory approach, for English as a second language students. It has also addressed itself to the influence of the student's native language on his ability to learn to read in English.

CHAPTER III

RESEARCH METHODOLOGY

The purpose of this study has been threefold. First, it has attempted to investigate the value of developing reading programs for English as a Second Language college students. Secondly, it has investigated the comparative effectiveness of two instructional procedures, a classroom based method and an independent laboratory method, in the teaching of reading skills to Hispanic college students who are learning English as a second language. Thirdly, it has been the purpose of this study to ascertain the relationship between the ability to read in one's native language and the ability to develop reading skills in English.

Hypotheses

1. Hispanic college students attending a traditional English as a Second Language class and participating in a reading program for ESL students will not make more progress in developing reading comprehension skills, significant at the .05 level, than those Hispanic college students attending only the traditional comprehensive English as a Second Language class.
2. Hispanic ESL college students participating in a classroom based method in reading will not make more progress in developing reading comprehension skills, as measured by the Nelson Denny Reading Test, significant at the .05 level, than those Hispanic ESL college students

participating in the independent laboratory program in reading.

3. Hispanic ESL college students who have higher scores in reading comprehension in their native language as measured by the Pruebas de Lectura, Cooperative Inter-American Reading Test, will not make more progress in developing reading skills in English as measured by the Nelson Denny Reading Test, significant at the .05 level, than those Hispanic ESL college students of lesser native language reading fluency.

The study has followed an experimental methodology involving a control group and two instructional groups. Forms C and D of the Nelson Denny Reading Test have been used to measure the research subjects' reading levels in a pretest - posttest design for each of the hypotheses. A 3 x 3 factorial design according to Schefe's Post Hoc method has been utilized to investigate the individual learning strategies and the interactions among the subgroups.

Sample Selection

"It is very important to select a group of subjects drawn from a narrowly defined population, otherwise relationships between variables may be obscured by the presence of subjects who differ widely from each other" (Borg & Gall, 1971, 322). The study took place at an urban community college in New York during the Fall semester of 1976 which extended from September 1976 through January, 1977. The population conformed to the following criteria:

1. They were Hispanic students who had entered the college in the Fall semester of 1976.
2. They were non-native speakers of English.

3. They had lived in the United States for 10 years or less.
4. They had a pretest raw score of 50 or less on Form C of the Nelson Denny Reading Test.
5. They had been placed in the basic English as a Second Language class as a result of their performance on the Michigan Test of English Proficiency, a raw score of 70 or less, and on a writing sample.

Random Assignment

Each student who met the aforementioned criteria was assigned to one of the three research groups in the following manner. The name of each student was written on an individual 3 x 5 index card and placed on a single pile without regard to any specific design. Then the total population was assembled, the investigator randomly assigned a card containing the name of a student to one of the three groups. The first card was assigned to Group A, the second to Group B and the third card to Group C. This procedure was repeated until the number of cards was exhausted. Group A was then arbitrarily selected as the Control Group, that is, receiving no reading instruction. Group B was assigned to the Classroom Based treatment group, and Group C to the Independent Laboratory treatment group.

Initially each group consisted of 42 students, a total of 126 subjects. However between the time of the placement examinations and the first day of class, the original population experienced the usual attrition and adjustment problems. Twelve of the original population decided to postpone their entrance into college to a later date. In addition some students who were assigned to certain treatment groups were not able to attend these classes because of family or job commitments. They were

allowed to register for other ESL classes and consequently became members of other treatment groups. It should be noted that during this rescheduling process the students were not aware of their possible involvement in the study. Also there was no effort on the part of the researcher to direct them to specific sections. The students were generally re-registered by college personnel who were not aware of the impending study. Finally there were other attrition fatalities prior to the tabulation of the research data. Students withdrew from courses because of sickness, job opportunities and a lack of interest. As a result, the research population consisted of 31 subjects in the Control group, 45 subjects in the Classroom Based group, and 25 subjects in the Independent Laboratory group.

Description of Treatment Groups

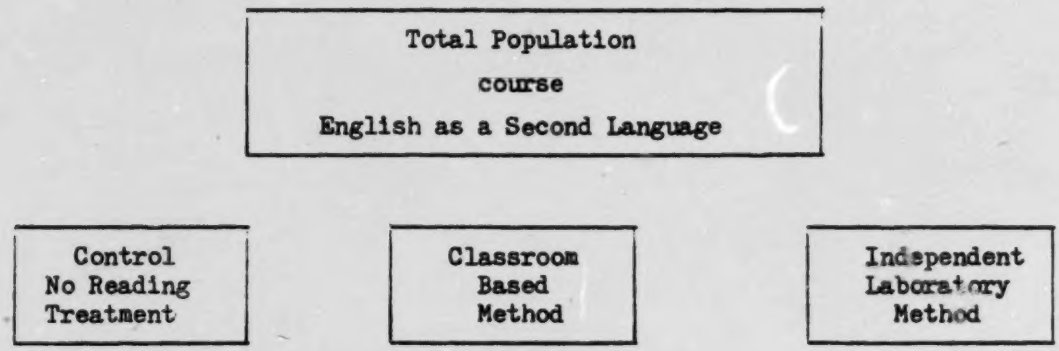
Control Group A control group was utilized to measure the effects of extraneous factors upon the posttest.

> If extraneous variables have brought about changes between the pretest and the posttest, these will be reflected in the scores of the control group...If properly carried out, this experimental design effectively controls for the eight threats to initial validity identified by Campbell and Stanley: history, maturation, testing, instrumentation, regression, selection, mortality and interaction effects. (Borg & Gall, 380)

The 31 Hispanic non-native speakers of English who composed the Control group received instruction only in their basic English as a Second Language class. They did not participate in any of the reading classes during the duration of the experiment.

Classroom Based Approach These students were assigned to the English as a Second Language class and to the reading course utilizing a classroom based approach.

Independent Reading Laboratory Approach These students were assigned to an English as a Second Language class and to the reading course utilizing an independent laboratory approach.



Assignment to Subgroups

"Significant findings are often revealed in subgroups comparisons that would not even be suspected if the analysis were limited to overall comparisons" (Borg & Gall, 385). Encouraged by this statement and the goal to investigate which instructional method is most compatible for which student, subjects were assigned to subgroups within their original treatment group.

Subgroups according to English Language Proficiency

This was achieved by arranging the entire research population's Nelson Denny Reading Test pretest raw scores from the highest to the lowest. The divisions of high, middle and low were determined on the basis of natural "breaks" in the distribution of scores. Raw scores below 25 were assigned to the low category; scores between 25 and 34 to the middle group, while scores between 36 and 50 to the high group.

TABLE 1

THE DISTRIBUTION OF POPULATION INTO SUBGROUPS ACCORDING TO ENGLISH LANGUAGE PROFICIENCY

Subgroups	Range of Raw Scores	Control	Independent Laboratory	Classroom Based
High	35 - 50	5	8	11
Middle	26 - 34	9	7	16
Low	4 - 25	17	10	18

Raw scores of 50 and under are below the 19th percentile as normed on the grade level of native speakers.

Subgroups according to Native Language Proficiency

During the first week of the semester, the subjects in the study were administered the advanced reading test, Spanish edition, Pruebas de Lectura, Form AS of the Cooperative Inter-American Test. The purpose of the test was to assess the reading ability of the Hispanic ESL students in their native language and subsequently to assign them to subgroups according to their ability. In order to achieve this, the raw scores were ranked from the highest to the lowest. Since there was no even distribution of scores evident, the divisions were made on the basis of natural "breaks" in the range of raw scores.

TABLE 2

THE DISTRIBUTION OF POPULATION INTO SUBGROUPS ACCORDING TO NATIVE LANGUAGE PROFICIENCY

Subgroups	Range of Raw Scores	Control	Independent Laboratory	Classroom Based
High	88 - 105	6	4	9
Middle	65 - 84	17	12	26
Low	45 - 64	3	9	10

The purpose in organizing the treatment groups into two different patterns has been to analyze more closely which instructional delivery system is most compatible for which student. For instance, which instructional methodology, the classroom based method or the independent reading laboratory method, is most appropriate for those students in the high ability group, in the middle ability group, and in the low ability group? The same pattern of thinking is pursued in analyzing the results of subgroups formed according to the subjects' proficiency in their native language, Spanish. Do students with greater reading ability in their native language make proportionately greater reading gains in learning to read in English than those of lesser ability? Also, in relation to this, which of the two instructional methods is most appropriate for which group?

Data Collection

Pretesting: The Michigan Test of English Proficiency, a writing sample, and the Nelson Denny Reading Test were administered during the regular college placement sessions, July, 1976. The Michigan Test of English Proficiency and the writing sample were administered to identify those

second language learners who had need of the English as a Second Language program. The Nelson Denny Reading Test was administered to all incoming students in order to identify those students who had need of a reading course. Having identified the research population with the above instruments, the subjects were given the Spanish edition, Pruebas de Lectura, Form AS, of the Cooperative Inter-American Test in order to assess their ability to read in their native language, Spanish.

Posttesting: The posttesting session consisted of measuring the subjects' total reading gain with the Nelson Denny Reading Test, Form D. It took place during the last week of the semester, January, 1977.

Treatment of the Data

The data have been treated for significance at the .05 level by a three-way analysis of variance according to Schefe's Post Hoc method. This method is appropriate for analysis of data where there is an unequal distribution of subjects in the cells being compared (Borg & Gall, 109).

TABLE 3

ADJUSTED CELL MEANS

Subgroups	Control	Independent Laboratory	Classroom Based
High	21.43	43.56	31.33
	W	W	W
Middle	14.31	32.56	30.23
	W	W	W
Low	20.64	29.49	21.86
	W	W	W

Instrumentation

Nelson Denny Reading Test

Forms C and D of the Nelson Denny Reading Test were utilized in a pretest - posttest design to measure the reading progress of the subjects. The tests which were designed for use with high school and college populations were standardized in 1972. The standardization sample requirements were based on information on the national student population. Specifications were drawn up to reflect geographical representation, socioeconomic levels, and community size. The reliability coefficients established for grade 13 were: vocabulary .96 and comprehension .74 (Brown, 1973, 24).

The test was composed of two subtests: a vocabulary subtest and a comprehension subtest. In the 100 item vocabulary subtest, each student was allowed 10 minutes to attempt as many items as he was able. The comprehension subtest which followed was composed of eight reading selections taken from various academic content areas. With the exception of the first selection, each reading passage was followed by four questions. There was provision within the first selection for measuring rate of comprehension. However it was not the intention of this study to measure this skill.

When the raw score was compiled, the vocabulary items were given a single weight value while the comprehension items were given a double weight value. The sum of the correct vocabulary items and the correct comprehension items constituted the total score which was considered "the best single index of reading ability obtained through the use of this instrument" (Brown, 1973, 3).

Brown suggested that the instrument may be utilized as a diagnostic

instrument (although it is not the primary use of the test), a predictive device (important for assisting in intelligent decision-making at the college level), and as a screening device for helping to identify the various levels of reading ability (1973, 17). It has also been indicated that the test can be utilized for predicting academic achievement among minorities. In his study "The Relationship of the Nelson Denny Reading Test and the Academic Performance of Afro-American College Freshmen", John Wesley Joyner concluded that there was a significant relationship between the total Nelson Denny percentile rank scores and the cumulative first year grade point average. He made his conclusion on the basis of studying the progress of 181 selected Afro-American male and female freshmen students (1972).

Cooperative Inter-American Test

In order to measure the ability of the subjects to read in Spanish, the Spanish edition of the Cooperative Inter-American Reading Tests was administered during the first week of the semester. The Inter-American tests were originally developed by the committee on Modern Languages of the American Council on Education for use in a study of the teaching of English in Puerto Rico. After some revision the materials were published in 1950 by the Educational Testing Service, Princeton, New Jersey, for general use under the title, Cooperative Inter-American Tests (CIA). In 1959, the publication of the tests was transferred by ETS to the Guidance Testing Associates (GTA), Austin, Texas.

The advanced level of the reading test, Pruebas de Lectura, form AS, was used in this study. The test which was designed for students in grades 8 through 13, contained a vocabulary and a reading section. In the voca-

bulary section, the students were given 15 minutes to complete 70 items. They were required to choose the term which best completed the meaning of the given statement. In the comprehension section, the students were allowed 25 minutes in which to read several selections and to respond to the questions which followed each passage. There were 58 items in the reading comprehension section. Each correct answer was given a weight value of one. The total score was the sum of the vocabulary subtotal score and the comprehension subtotal score.

The standardization data provided by the publishers were somewhat limited. They explained that the series of tests is so extensive and the geographical areas in which they are to be used are so varied that only limited reference data can be provided (GTA Supplement, 1967, 2). Nevertheless they did state that the coefficient of reliability for the advanced level of the reading test, Pruebas de Lectura, AS, was .92 (1967, 3). This was ascertained as a result of administering the test to approximately 1,500 university freshmen. Moreover the credibility of the test as a viable instrument has been witnessed by its use on various college and university campuses such as the City University of New York and the University of Texas. It has also been utilized by the Department of Education and the Board of Education of the City of New York.

Michigan Test of English Proficiency

The Michigan Test of English Proficiency, Form A, sponsored by the English Language Institute of the University of Michigan, was designed to estimate whether a student whose native language is not English is able to pursue academic studies in an English language institution of higher learning. The instrument was composed of three subtests: a grammar subtest, a vocabulary subtest, and a comprehension subtest. The

grammar subtest was utilized to reflect how well a student could recognize and use English grammatical structures. The student was required to select a word or group of words which best completed the words of a conversation. In the vocabulary subtest there were two types of items. In the first type, the student was given a sentence followed by four phrases. He was asked to find the word or phrase that was closest in meaning to the underlined word or words in the sentence. In the second type of item, the student was given a sentence with one word omitted followed by a list of four words. He was then asked to select the word that would best complete the sentence. In the reading comprehension subtest, the student was asked to read four passages and answer the questions which followed each passage. Five questions followed each passage. A total of 75 minutes was provided to respond to the 100 items on the test.

Because the test represented only the written segment of the Michigan Test of English Proficiency, the publishers found it difficult to measure its validity. The number of items on the subtests was not sufficient to generate significant subscores. Despite the lack of data available for the standardization of this segment of the instrument, educators have considered it as "a generally well constructed test" (Buros, 1965). The coefficient of internal consistency for the entire battery was established at .965. The credibility of the instrument has been also supported by its use at several institutions of higher learning such as the City University of New York, New York University and the University of Michigan.

Instructors

The two instructors who participated in this study are full time faculty members of the Department of Special Educational Services. This department is responsible for the ESL and the Reading programs at Bronx Community College. Both of the instructors have their Master's degrees and are experienced in teaching ESL and Reading courses on a college level.

In order to control for instructor bias, each teacher taught one section of the classroom based approach and one section of the independent reading laboratory approach. Both shared the same office and collaborated on developing materials for courses, thus assuring some basic uniformity in conducting the experiment.

Assumptions and Limitations

It is assumed that the population represented in the study reflects a cross section of urban Hispanic college students who are taking basic English as a Second Language courses. It is also assumed that the space of one semester is sufficient to study the effects of two reading approaches. An extended length of time would adversely affect the maintenance of the study's variables. For instance, the students would be exposed to additional courses and experiences that might affect the design of the study. Finally it is assumed that the instruments used for testing are reliable tools.

One of the limitations of the study lies in the fact that the population has been drawn from one urban community college. This was not necessarily by design. A survey of other urban colleges in the geographical vicinity disclosed that ESL students who were required to take a reading

skills course, took it with native speakers. There was no special provision for the ESL students. On the other hand, to extend this experiment to other campuses would run the risk of losing control over the instructional approaches. Different and additional teachers in different institutions would expose the experiment to a variety of interpretations. Another limitation of this study is that the influence of student motivation might have been more accurately measured. However the utilization of a control group has helped to minimize the impact of this variable.

CHAPTER IV

FINDINGS

The findings of this investigation should be analyzed with the knowledge that the students who were assigned to the independent reading laboratory group were generally well motivated but lacked the skills to perform as independent learners. Thus for ethical reasons and similar to the experience of other researchers (Dressel & Thompson, 1973; McHargue, 1975; Santeusanio, 1974), the instructors participating in this study provided more direct supervision during the first weeks of the course in order to orient the students to the principles and procedures of the independent laboratory method. As the course progressed, the amount of supervision was reduced to conform with the original design of the study.

Hypothesis I

Hispanic college students attending a traditional English as a Second Language class and participating in a reading program for ESL student will not make more progress in developing reading comprehension skills, significant at the .05 level, than those Hispanic college students attending only the traditional comprehensive English as a Second Language class.

The null hypothesis was rejected at a .05 level of significance. A test statistic of 10.5796 at a critical value of 3.1100 (df = 2/92) was achieved. The reading treatment groups did significantly better than the comprehensive ESL course, the control group.

TABLE 4

THE DISTRIBUTION OF RAW SCORE CELL MEANS ACCORDING TO ENGLISH LANGUAGE READING PROFICIENCY

Subgroups	Control	Independent Laboratory	Classroom Based
High	41.86	50.37	56.09
Middle	31.14	53.00	46.00
Low	23.05	43.90	35.68

An analysis of the subgroup cells has revealed that on each level, high, middle, and low, the reading treatment groups did better than the control group. Among the control subgroups, only the high fluency subgroup reached the desired minimum raw score goal of 40 (8.8 grade level equivalent) on the posttest of the Nelson Denny Reading Test. This was one of the criteria necessary for advancing to the intermediate level of the reading course. However all three of the independent subgroups as well as the high and the middle subgroups of the classroom based method surpassed the minimum goal. The results have indicated that an ESL program which includes a separate but complementary reading course is significantly more advantageous for developing the reading skills of Hispanic ESL college students than the traditional comprehensive ESL course.

Hypothesis II

Hispanic ESL college students participating in a classroom based method in reading will not make more progress in developing reading comprehension skills, as measured by the Nelson Denny Reading Test, significant at the

.05 level, than those Hispanic ESL college students participating in the independent laboratory program in reading.

The null hypothesis failed to be rejected. The observed test statistic of 0.8415 at a critical value of 6.2101 did not attain a .05 level of significance. The classroom based group did not do significantly better than the independent group when arranged according to the students' English language proficiency.

Also there was no statistically significant interaction among the subgroups when arranged according to the subjects' English language proficiency. However the results did reveal that the high English ability classroom based subgroup did slightly better than the independent subgroup. On the other hand, both the middle and the low ability independent groups did slightly better than their classroom based counterparts.

TABLE 5

POSTTEST RAW SCORE CELL MEANS FOR CLASSROOM BASED AND INDEPENDENT LABORATORY GROUPS ACCORDING TO ENGLISH LANGUAGE PROFICIENCY

Subgroups	Independent Laboratory	Classroom Based
High	50.37	56.09
Middle	53.00	46.00
Low	43.90	35.68

Hypothesis III

Hispanic ESL college students who have higher scores in reading comprehension in their native language as measured by the Pruebas de Lectura,

Cooperative Inter-American Test, will not make more progress in developing reading skills in English as measured by the Nelson Denny Reading Test, significant at the .05 level, than those Hispanic ESL college students of lesser native language fluency.

The null hypothesis was rejected. A 3 x 3 analysis of variance according to Schefe's Post Hoc method with the Pruebas de Lectura of the Cooperative Inter-American Test, Form D, as the dependent variable revealed that students with high native language reading ability made greater gains in reading comprehension in English than those of lesser native language reading ability. A test statistic of 4.9562 at a critical value of 3.1100 (degrees of freedom = 2/92) was achieved.

TABLE 6

POSTTEST RAW SCORE CELL MEANS ACCORDING TO NATIVE LANGUAGE READING PROFICIENCY

Subgroups	Control	Independent Laboratory	Classroom Based
High	39.33	61.00	48.55
Middle	25.05	50.41	46.07
Low	32.12	40.44	35.10

A significant difference in mean reading gain was observed among the high native fluency groups and the low native language fluency groups ($p < .05$). While there was no statistical difference observed between the performance of the high fluency and the middle fluency cells, and the middle and the low fluency cells a proportionate consistency in reading growth

did exist. The results tended to support the common contention that the degree of reading fluency in one's native language, in this case, Spanish, is positively related to the amount of growth in learning to read in English as a second language.

Contrary to the lack of significant interaction among the English proficiency subgroups, there was a significant interaction among the Spanish reading subgroups ($p < .05$). This was attributable in part, to the fact that while the population was very similar in their English reading proficiency, they were dissimilar with regard to their ability to read in their native language, Spanish. By way of illustration, the range of raw scores of the low native language group was 45 to 64, equivalent to 10th through 49th percentile. The range of the middle group raw scores was 65 through 84, equivalent to the 50th through the 80th percentile; the high group's range, 85 through 101, equivalent to the 84th through the 96th percentile (GTA Manual, 1967, 40). On the other hand, the research population's English reading scores were entirely below the 19th percentile. Actually the majority of the subjects were below the 12th percentile, a raw score of 35.

It should be pointed out that the percentiles for the Spanish reading test, Pruebas de Lectura AS, were based on 247 twelfth grade scores from the Latin American Schools of the Canal Zone Government (GTA, 14). More reliable norms were unavailable because the publishers of the Cooperative Inter-American Tests claim that the variety of circumstances and populations under which the tests have been administered make standardization difficult (GTA, 3).

Nevertheless an analysis of the subgroups arranged according to native

language proficiency has revealed that students with high native language reading ability do significantly better (61) when placed in an independent reading laboratory program rather than in a classroom based program (48). In terms of a grade equivalent comparison, the high fluency independent cell achieved approximately four years reading growth as compared to two years, nine months growth for the high native fluency classroom group. In fact the middle independent group whose native language fluency ranges between the 50th and the 84th percentile, also did better than the high fluency classroom group.

The interaction among the low native ability cells is also interesting. Unlike any of the other interactions, there was no statistical difference among the low control cells (32) and the two low reading cells (40, 35). In other words, neither of the two reading methods made any measurable impact on the low ability students.

Summary

1. A summary of the findings indicated that reading programs for students who are participating in an ESL program do make a significant contribution to the development of reading skills in English for Hispanic ESL college students ($p < .05$).
2. There was no overall significant difference between the classroom based method and the independent reading laboratory method when the subjects were arranged according to their English language proficiency.
3. There was no significant interaction among the subgroups when they were compared according to the students' English reading proficiency. However there was a tendency for people with high pretest scores to do comparatively better than those with lower scores.

4. The analysis showed that other variables such as native language reading ability should be considered along with the student's English reading proficiency when designing compatible instructional options for him.

5. When an analysis of the subgroups organized according to native language profiency was undertaken, students in the highest fluency cells made significantly more reading progress than those in the lowest fluency cells ($p < .05$).

6. Students with high native language reading proficiency did significantly better in the independent reading laboratory method ($p < .05$) than those assigned to the classroom method. In fact, students in the high and in the middle native ability independent cells did better than those in the high classroom group.

7. The ratio of growth between the high and the middle independent cells (61, 50) was greater than that of the classroom cells (48, 46). The results seem to indicate that Hispanic ESL college students with good native language reading skills have a greater opportunity to develop their reading potential in an independent reading laboratory method than in a classroom method.

8. While the overall results revealed a statistically significant difference between the control group and the experimental groups, there was no significant difference in the mean raw scores among the three low native language reading ability cells. The results indicated that neither the classroom based method nor the independent laboratory method was appropriate for these students. Additional research is needed to design more compatible learning conditions for these students.

9. In light of the small number of subjects used in the study, additional research is needed to verify these findings.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The nation's commitment to a philosophy of universal higher education has served to remind educators that minority groups value education as a means of entering more fully into the American way of life. Among the minority groups who have responded to this open admissions policy has been a nontraditional generation of Hispanic non-native speakers of English. These people perceive this invitation to pursue their education as also an opportunity to improve their reading skills in English so that they can gain greater academic, social and occupational mobility.

The arrival of these students on campuses has challenged administrators to re-evaluate their English as a Second Language programs. Do the traditional comprehensive ESL courses meet the individual reading needs of those students? Do the programs provide instructional alternatives which are compatible with the individual learning styles of the students? What is the influence of native language reading ability on the ability to learn to read in English?

A review of the literature has revealed that there is an absence of college reading programs for ESL students. In most situations reading skills instruction for non-native speakers of English was provided as part of the traditional comprehensive ESL course. In other situations,

ESL college students were assigned to reading courses designed for native speakers despite their special needs. The literature has also shown that these general college reading programs have been largely ineffective. In their monolithic format they have failed to meet the needs of the growing number of college students who require additional instruction in reading. A lack of control of such variables as age, motivation and type of student, has been characteristic of the mediocre quality of the research procedures. Also the value of the research has been limited in that most of the investigations have been main-effect studies comparing methods or population en masse, with little attention to the interaction of the subgroups.

Conscious of the fact that there is no one instructional method which is appropriate for all students, there is a need to design pluralistic reading programs which would provide alternate modes of instruction. Consequently there is a need to investigate which instructional methods are compatible with which students' learning styles. Hence there is a need to identify those variables which supply information as to which specific method is most appropriate for which student. One such variable is the influence of native language reading ability. Do Hispanic ESL college students with greater native language reading fluency make greater progress in learning to read in English than those with lesser fluency?

Therefore the purpose of this study has been threefold:

1. to investigate the need for reading programs for Hispanic non-native speakers of English who are also participating in English as a Second Language classes;
2. to investigate the comparative effectiveness of two instructional

methods, a classroom based method and an independent reading laboratory method, in the teaching of reading skills to Hispanic college students who are learning English as a second language;

3. to ascertain the relationship between the ability to read in one's native language and the ability to develop reading skills in English among ESL college students.

In order to analyze the interaction among the subgroups of the study, two 3 x 3 analyses of variance according to Schefe's Post Hoc method were utilized. One of the factorial designs was organized according to the English reading ability of the subjects; the other according to their native language reading ability. The covariate for the former was the raw scores from the Nelson Denny Reading Test, Form C; the latter, the Cooperative Inter-American's Pruebas de Lectura, a reading test in Spanish, Form AS. The dependent variable for both designs was the Nelson Denny Reading Test, Form D.

Hypothesis I

Hispanic college students attending a traditional English as a Second Language class and participating in a reading program for ESL students will not make more progress in developing reading comprehension skills, significant at the .05 level, than those Hispanic college students attending only the traditional comprehensive English as a Second Language class.

Findings

The null hypothesis was rejected at the .05 level of significance on both the English reading proficiency and the Spanish reading proficiency factorial designs.

Conclusions

The statistics supported the growing awareness that reading programs for ESL students will significantly enhance the development of their reading skills in English. Both reading methods, the experimental groups, did significantly better than the traditional comprehensive ESL course, the control group.

Findings

There was no significant interaction among the subgroups arranged according to the English reading proficiency design.

Conclusion

The nonsignificant interaction was the result of the lack of distinctiveness among the various English reading ability levels. The range of the pretest raw scores on the Nelson Denny Reading Test, Form C, was between 10 and 50 with three fourths of the raw scores falling between 10 and 35. In other words, the majority of the population was below the twelfth percentile in reading in English. Consequently the results illustrated the limitation of placing ESL college students in various reading programs solely on the basis of their English reading ability. It also points out the necessity for studying other variables such as native language fluency which might provide additional information with regard to determining compatible instructional methods for individual students.

Hypothesis II

Hispanic ESL college students participating in a classroom based method in reading will not make more progress in developing reading comprehension skills, as measured by the Nelson Denny Reading Test, significant at the

.05 level, than those Hispanic ESL college students participating in the independent laboratory program in reading.

Findings

The null hypothesis failed to be rejected. The classroom based group did not make significantly more progress than the independent reading laboratory group.

Conclusion

One of the reasons which might have influenced this outcome was the fact that the students who were randomly assigned to the independent reading laboratory group were unfamiliar with the principles and procedures of independent study. Thus the instructors had to take a more central role in terms of orienting the students and supervising their activities. Hence the independent reading laboratory method took on some of the characteristics of the classroom based method. It should be noted also that if the instructors had chosen to allow the students to adjust for themselves in an unsupervised fashion, the initial confusion and frustration exhibited by the students would have continued.

Because of the lack of distinctiveness among the ability levels of the English reading ability subgroups and the role that the instructors had to assume in orienting the independent laboratory group, a further analysis of the English reading ability subgroups was not considered appropriate.

Hypothesis III

Hispanic ESL college students who have higher scores in reading comprehension in their native language as measured by the Pruebas de Lectura, Cooperative Inter-American Reading Test, Form AS, will not make more

progress in developing reading skills in English as measured by the Nelson Denny Reading Test, significant at the .05 level, than those Hispanic ESL college students of lesser native language reading fluency.

Findings

1. The null hypothesis was rejected for the high and the low native reading fluency groups at the .05 level of significance.
2. While there was no statistically significant difference between the high native language reading ability group, and the middle and low ability group, there was a consistency in that those students with more native language reading ability did comparatively better in learning to read in English than those of lesser ability.
3. In the overall statistics, the experimental groups did significantly better than the control group ($p < .05$).
4. The high fluency native language readers in the independent reading laboratory group did signficantly better than their counterparts in the high classroom based group.
5. The middle fluency readers in the independent reading laboratory method tended to do slightly better (50) than those in the high classroom (48) and those in the middle classroom groups (46).
6. The high and the middle native language reading ability students in the independent laboratory group made greater reading gains than their counterparts in the classroom based groups.

Conclusions

The results have supported the contention that students with greater native language reading ability make greater progress in learning to read in English than those of lesser ability. Also students with greater

native language reading ability make greater progress in an independent reading laboratory method where there is more of an opportunity to develop reading skills in an unregimented fashion. On the other hand, the results have tended to confirm the suspicion that college students who are deficient in reading in their native language will find similar difficulty in learning to read in English. Moreover it appears that a classroom based method and/or an independent reading laboratory method is not compatible to their learning needs. Hence there is a need to research and to design programs that will meet the special reading needs of these ESL students.

Furthermore an analysis of the data has revealed a positive correlation between the native language reading ability of Hispanic ESL college students and their ability to learn to read in English. Also there was a tendency for those students with good native language reading ability to make greater strides in reaching their English language reading potential with less regimented and more student centered instructional methods, such as an independent reading laboratory method.

Finally it should be noted that while substantial reading gains were achieved by the middle and the high native language ability experimental groups, none of the groups attained a score equivalent to a college level during the one semester duration of the experiment. The highest score was attained by the high native language ability independent group, a 12.3 grade level equivalent. However some individual students attained and surpassed the 13th grade level.

Implications

The investigation has provided several implications for educators. With regard to experimental design it has demonstrated the importance of preserving the internal validity of data by the utilization of a control group. The study has also illustrated the value of utilizing a factorial design in investigating the comparative effectiveness of two instructional methods with various subgroups of the research population. The ability to analyze data according to subgroups has increased researchers' awareness of the individual learning styles among students. The use of a factorial design has also served to indicate the limitations of main-effect studies which have dominated much of college reading research.

The study has also demonstrated that there is a need not only to develop pluralistic reading programs but that there is also a need to investigate the compatibility of other instructional methods with the individual learning styles of students. Furthermore native language proficiency should be considered when designing reading programs for ESL college students. While the study limited itself to Hispanic ESL students for control purposes, similar studies might be conducted with other non-native speakers of English groups. In addition there is a need to explore more creative approaches for instructing those ESL students who have limited reading ability in their native language as well as in English. Additional studies might continue to investigate the influence of age and motivation in relation to second language learning by adults.

The study also indicated that additional research is needed to verify the viability of independent reading laboratory programs as an effective method for developing the reading skills of ESL college students. This

method permits ESL students with greater native language reading fluency to develop their reading skills in English in an unregimented manner. The study also disclosed that many students are unfamiliar with the concept and the procedures of independent laboratory programs. Hence educators must be concerned with providing appropriate orientation and supervision according to the needs of each student. Failure to provide this service results in unnecessary frustration on the part of the neophyte student.

The necessity of training instructors to conduct student centered independent laboratory programs was also revealed. Many instructors come from teaching backgrounds where they have been in direct control of all of the classroom activities. In an independent program, instructors have a less dominant role. They function as resource persons and facilitators in guiding each student to the completion of his task.

Also the study of the independent reading laboratory program illustrated the need for developing materials appropriate for this method. There is a need for additional audio-visual and other skill materials that correspond to the objectives of the course as well as to the age of the students and to their backgrounds as ESL students.

The study has also served to challenge educators to design programs that go beyond offering courses in English composition and reading for non-native speakers of English. While many of these students adjust to English speaking curricula with a minimum of difficulty, some do not. This latter group requires extensive instruction before they can participate adequately in courses taught in English. Yet because of the requirements to receive financial aid in some states, a minimum of three college

level credits in the first semester and six college credits in the second semester, and because basic ESL courses and reading courses are not granted college level status at some institutions, these ESL students are compelled to enroll in English speaking courses for which they are ill prepared to participate. They subsequently fail these courses and are subject to academic probation, suspension and the loss of their matriculation and financial aid. In order to provide a more equitable opportunity for these students to continue their education, thought might be given to conducting some of the introductory courses that are required of most curricula in the native languages of the largest non-native speaking groups. A limited number of courses is being suggested because of the students' desire to develop their skills in English while attending college. This fact is supported by the investigator's experience with ESL college students. Many of these students are employed at jobs that offer opportunities for advancement for those employees who are bilingual. The desire to learn English is also supported by the fact that the Hispanic students chose an English speaking institution when they could have attended a nearby college which conducts many of its courses in Spanish.

While the significance of this study has been limited because of its population, 101 students, it has, nevertheless, broad implications. To the extent that educators continue to investigate instructional methods which are appropriate for developing reading skills in English for the growing number of non-native speakers of English who have enrolled in college under the open admissions policy, they will be providing these students with an important vehicle for greater academic, occupational and social mobility. This freeing experience will allow these students not only to participate more readily in the American culture, but also to contribute significantly to it.

APPENDIX

Instructional Objectives for the Classroom Based Approach and the Independent Laboratory Approach

Vocabulary

1. Given a word from any source, the student will be able to use the dictionary to:
   a. locate the orthographic entry, including spelling and syllabication
   b. locate the phonetic entry
   c. locate the definition of the entry word
   d. recognize the symbols for parts of speech and plurals
2. Given a word from any source, the student will be able to use the dictionary to locate the correct meaning of the word, depending upon the context, from a group of numbers, "senses" or definitions
3. Given reading material, the student will be able to select the meaning of unfamiliar words by using the following clues:
   a. knowledge of the meaning of prefixes
   b. knowledge of the meaning of suffixes
   c. knowledge of the meaning of roots
4. Given reading material representative of various college course areas, the student will be able to get the general meaning of unfamiliar words in situations where the context contains such clues

as the following:

a. direct explanation

b. opposite meaning

c. synonyms

d. repetition

e. general sense of the passage

Comprehension

5. Given sentences of varying complexity, students will be able to identify the core parts, such as subject, verb, and object

6. Given paragraphs, the students will be able to:

   a. select the topic from a number of choices

   b. identify and write the topic

   c. select the main idea from a number of choices

   d. identify and write the main idea

7. Given reading material from an appropriate source, the student will be able to identify signal words such as, yet, but, and therefore, and state how they influence the meaning of the sentence or the paragraph.

8. Given paragraphs, the student will be able to:

   a. select the supporting details for each main idea from a number of choices

   b. identify and write the supporting details for each main idea

Study Skills

9. Given a reading selection, and an outline form, the student will be able to:
   a. recognize the main idea and supporting details and write them in the proper place in the outline form given to the students
   b. recognize main ideas and supporting details and write them in an outline using acceptable form and symbols of logical relationships
10. Given a selection from an appropriate textbook, the student will use a systematic study method which will include but not be limited to:
   a. surveying the material
   b. writing noted or underlining
   c. answering correctly, with and without notes or the text, several questions based on the selection

GLOSSARY

Classroom Based Method: The classroom based method is a teacher-directed method with prescribed classroom routines and materials. Provision is made for meeting the student's individual needs through a variety of presentations: lecture, small group, and individual work. This approach should not be confused with the traditional approach which is characterized by regular whole class instruction.

The instructor:

1. provides initial and ongoing diagnosis of skill needs;
2. coordinates appropriate learning strategies: lecture, small group instruction, and individual assignments;
3. provides for peer learning through stress on small group instruction;
4. prescribes materials, teacher-made or published materials, according to the individual needs of the student;
5. provides individual and group feedback through classroom supervision.

The student:

1. attends each class session, 5 hours per week;
2. participates in class activities;
3. completes home assignments;
4. takes the departmental final examination.

English as a Second Language Course, Basic Course: The focus of this course is the development of English Language skills by second language learners. It builds oral and written control of basic grammatical

structures as well as develops listening skills. It is a required non-credit course. The student attends the 15 week semester course four times a week for two hour sessions.

Independent Reading Laboratory: While the principle of individualization is operative in this learning strategy, the distinguishing factors are increased student responsibility for his own learning and a less dominant role by the instructor. Each student is responsible for completing his self-selected skill materials. The Reading Laboratory personnel (staff and tutors) and materials are at his disposal. The instructor functions as a catalystic resource person providing a diagnosis of the student's reading skills, suggested skill building materials, individual and small group consultation.

The instructor:

1. conducts Workshop orientation sessions to acquaint students with both procedures and materials;
2. conducts individual sessions to provide feedback and suggested directions for future work;
3. provides initial and ongoing diagnosis of the student's reading needs;
4. provides suggested skill building materials and packets according to each student's needs;
5. holds bimonthly small group sessions for the purpose of providing the opportunity for peer sharing of experiences and for dissemination of general information.

The student:

1. selects areas in which he wishes to work;

2. determines mutually with the instructor a time schedule within which to complete his individual assignments;
3. takes periodic quizzes, generally after the completion of skill units, to monitor his own growth;
4. takes a final examination at the end of the semester based on the instructional objectives of the course.

In order to receive feedback on his progress, the student:

1. attends a bimonthly small group meeting with his peers to discuss his progress, seek clarification, and direction. The instructor serves as a catalyst in these discussions;
2. schedules periodic interviews with the instructor.

Non-Native Speaker of English: This is a person whose first or native language is not English. For this study, our subjects were those college students whose native language is Spanish.

Reading and Study Skills Course, Basic Course: This is a course of study designed to develop reading and study skills necessary for success in college. It is a required non-credit course for those students whose reading grade level is 8.9 or below as measured by the Nelson Denny Reading Test, Form C. In order to satisfy the requirements of this basic course and to proceed to the next level, the student must attain a 8.9 reading level and demonstrate competence in the instructional objectives of the course.

Reading Laboratory: The reading laboratory is a facility that is under the administration of a full-time faculty member and staffed by college assistants and tutors. The college assistants have at least a B.A.

degree. Several have their Master's degrees in English or Reading. The tutors are presently enrolled college students who have been hired by the college. The function of the tutors and the college assistants is to provide individual help to those students who request it. The laboratory contains a variety of reading machines: controlled readers, audio-visual cassettes, and tachistoscopes. There is also a wide selection of published skill materials as well as teacher-made materials spanning a broad range of abilities.

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